

**PATENT**

**RESPONSE UNDER 37 C.F.R. 1.116 - EXPEDITED  
PROCEDURE - EXAMINING GROUP 1645**

**IN THE UNITED STATES PATENT AND TRADEMARK**

Appl. No.: 09/856,969 Confirmation No.: 5142  
Applicant(s): Chantal Cayeula et al.  
Filed: August 1, 2001  
Art Unit: 1645  
Examiner: Jana Hines  
Title: SELECTION AND USES OF LACTIC ACID BACTERIA STRAINS  
MODULATING NON-SPECIFIC IMMUNITY

Docket No.: 033339/234602  
Customer No.: 00826

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**AMENDMENT AFTER FINAL ACTION  
PURSUANT TO 37 C.F.R. § 1.116**

Sir:

In response to the Final Office Action dated December 11, 2003, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims beginning on page 2 of this paper.

Remarks/Arguments begin on page 4 of this paper.

*Entered for RCE request 12/26/04 an*

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Amendments To The Claims:

1. (Currently Amended) A method for regulating the inflammatory response of enterocytes, said method comprising contacting said enterocytes with a composition containing as an active agent a lactic acid bacteria strain capable of decreasing the production of nitric oxide (NO) by cultures of enterocytes preactivated with a mixture of pro-inflammatory cytokines comprising IL-1- $\beta$ , TNF- $\alpha$ , and IFN- $\gamma$  and bacterial lipopolysaccharides (LPS).
2. (Previously Amended) A method according to Claim 1, wherein said strain is also capable of increasing the production of NO by cultures of enterocytes preactivated with pro-inflammatory cytokines.
3. (Previously Amended) A method according to Claim 1, wherein said bacterial strain is a *Lactobacillus casei* (*L. casei*) strain.
4. (Previously Amended) A method according to Claim 1, wherein said bacterial strain is the *L. casei* strain CNCM I-1518.
5. (Previously Amended) A method according to Claim 1, wherein said composition is in the form of a food supplement.
6. (Previously Amended) A method according to Claim 1, wherein said composition is in the form of a fermented dairy product.
7. (Withdrawn) Process for screening novel lactic acid bacterial strains which have properties which modulate non-specific immunity, which comprises selecting lactic acid bacteria strains capable of inhibiting the production of NO by cultures of enterocytes preactivated with pro-inflammatory cytokines and bacteria LPS.

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8. (Withdrawn) Process according to Claim 7, which also comprises a step of selecting strains capable of increasing the production of NO by cultures of enterocytes preactivated with pro-inflammatory cytokines.

9. (Withdrawn) Process according to Claim 7, wherein said strains are screened using cultures of lactic acid bacteria chosen from the group consisting of lactobacilli, lactococci, streptococci and bifidobacteria.

10. (Previously Amended) A method according to Claim 1, wherein the lactic acid bacteria is in the form of whole bacteria which may or may not be living.

11. (Previously Amended) A method according to Claim 1, wherein the lactic acid bacteria is in the form of a bacterial lysate.

12. (Previously Amended) A method according to Claim 1, wherein the lactic acid bacteria is in the form of bacterial fractions.

13 - 20 (Cancelled)